

An Autopilot System for Static Zone Detection

Authors : Yanchun Zuo, Yingao Liu, Wei Liu, Le Yu, Run Huang, Lixin Guo

Abstract : Electric field detection is important in many application scenarios. The traditional strategy is measuring the electric field with a man walking around in the area under test. This strategy cannot provide a satisfactory measurement accuracy. To solve the mentioned problem, an autopilot measurement system is divided. A mini-car is produced, which can travel in the area under test according to respect to the program within the CPU. The electric field measurement platform (EFMP) carries a central computer, two horn antennas, and a vector network analyzer. The mini-car stop at the sampling points according to the preset. When the car stops, the EFMP probes the electric field and stores data on the hard disk. After all the sampling points are traversed, an electric field map can be plotted. The proposed system can give an accurate field distribution description of the chamber.

Keywords : autopilot mini-car measurement system, electric field detection, field map, static zone measurement

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